

CLAIMS

We claim:

1. A method for analyzing biochemical pathways, comprising the steps of:
  - a) formation of an array of immobilized biomolecules;
  - b) exposing the array to biomolecules in solution; and
  - c) detecting modification of the immobilized biomolecules;wherein the immobilized biomolecules and/or the biomolecules in solution comprise at least two members of at least one biochemical pathway.
2. The method of claim 1, further wherein said array comprises at least two different types of immobilized biomolecules.
3. The method of claim 1, further wherein said biomolecules in solution comprise at least two different types of biomolecules.
4. The method of claim 1, comprising the additional step of detecting the presence of at least one biomolecule in solution based on said modification.
5. The method of claim 1, comprising the additional step of identifying the function of at least one biomolecule in solution based on said modification.

6. The method of claim 1, comprising the additional step of quantifying the amount present of at least one biomolecule in solution based on said modification.

7. The method of claim 1, comprising the additional step of qualitatively and/ or quantitatively determining the level of activity of at least one biomolecule in solution based on said modification.

8. The method of claim 1, comprising the additional step of qualitatively and/ or quantitatively determining the level of activity of at least one immobilized biomolecule based on said modification.

9. The method of claim 1, comprising the additional step of detecting the presence of at least one immobilized biomolecule based on said modification.

10. The method of claim 1, comprising the additional step of identifying the function of at least one immobilized biomolecule based on said modification.

11. The method of claim 1, comprising the additional step of quantifying the amount present of at least one immobilized biomolecule based on said modification.

12. A method for analyzing biochemical pathways, comprising the steps of:

a) formation of an array of immobilized biomolecules;

b) exposing the array to biomolecules in solution; and  
c) detecting modification of the biomolecules in solution;  
wherein the immobilized biomolecules and/or the  
biomolecules in solution comprise at least two members of  
at least one biochemical pathway.

13. The method of claim 12, further wherein said array  
comprises at least two different types of immobilized  
biomolecules.

14. The method of claim 12, further wherein said  
biomolecules in solution comprise at least two different  
types of biomolecules.

15. The method of claim 12, comprising the additional  
step of detecting the presence of at least one biomolecule  
in solution based on said modification.

16. The method of claim 12, comprising the additional  
step of identifying the function of at least one  
biomolecule in solution based on said modification.

17. The method of claim 12, comprising the additional  
step of quantifying the amount present of at least one  
biomolecule in solution based on said modification.

18. The method of claim 12, comprising the additional  
step of qualitatively and/ or quantitatively determining

the level of activity of at least one biomolecule in solution based on said modification.

19. The method of claim 12, comprising the additional step of qualitatively and/ or quantitatively determining the level of activity of at least one immobilized biomolecule based on said modification.

20. The method of claim 12, comprising the additional step of detecting the presence of at least one immobilized biomolecule based on said modification.

21. The method of claim 12, comprising the additional step of identifying the function of at least one immobilized biomolecule based on said modification.

22. The method of claim 12, comprising the additional step of quantifying the amount present of at least one immobilized biomolecule based on said modification.

23. A method for analyzing biochemical pathways, comprising the steps of:

- a) formation of an array of immobilized biomolecules;
- b) exposing the array to biomolecules in solution; and
- c) detecting binding of the biomolecules in solution to the immobilized biomolecules;

wherein the immobilized biomolecules and/or the biomolecules in solution comprise at least two members of at least one biochemical pathway.

24. The method of claim 23, further wherein said array comprises at least two different types of immobilized biomolecules.

25. The method of claim 23, further wherein said biomolecules in solution comprise at least two different types of biomolecules.

26. The method of claim 23, comprising the additional step of detecting the presence of at least one biomolecule in solution based on said binding.

27. The method of claim 23, comprising the additional step of identifying the affinity and/ or avidity of at least one biomolecule in solution for at least one immobilized biomolecule based on said binding.

28. The method of claim 23, comprising the additional step of identifying the affinity and/ or avidity of at least one immobilized biomolecule for at least biomolecule in solution based on said binding.

29. The method of claim 23, comprising the additional step of quantifying the amount present of at least one biomolecule in solution based on said binding.

30. The method of claim 23, comprising the additional step of detecting the presence of at least one immobilized biomolecule based on said binding.

31. The method of claim 23, comprising the additional step of quantifying the amount present of at least one immobilized biomolecule based on said binding.

32. An array of immobilized biomolecules, wherein the immobilized biomolecules comprise at least two members of at least one biochemical pathway.